ABSTRACT OF THE DISCLOSURE

Turning on and off of the light source illuminating an object to be imaged is judged based on brightness changes in small and large areas set up in the frame and an electric charge storage time for each pixel is set up to be equal to the turning-on-and-off period of the light source or an integral multiple thereof. The charge storage time is changed over responsive to the turning-on-and-off period of the light source or the integral multiple thereof to set up a stored light amount for each pixel stepwise and difference in the stored light amount between steps is interpolated by continuous gain control of read-out signals of pixels.